

REMARKS

Claims 1-44 remain. Claim 23 has been amended. No new matter has been added. Applicant respectfully requests favorable reconsideration and allowance in light of the amendment and remarks contained herein.

Applicant's Record Under § 713.04 of Telephone Interview With Examiner

Applicant thanks Examiners Nadkarni and Mengistu for their time and consideration in conducting the interview of March 19, 2008. Applicant respectfully submits the following record of the telephone interview under M.P.E.P. § 713.04.

The following persons participated in the interview: Examiner Sarvesh J. Nadkarni, Amare Mengistu and Applicant's attorneys Wayne Livingstone (Reg. No. 60,988), and Nathan J. Rees. Claims 1, 9, 21, 27, and 39 were discussed along with prior art, Martin et al. (U.S. Pat. 6,714,206 B1, hereinafter Martin).

Examiners agreed that Martin failed to teach one or more aspects of the independent claims and therefore, the present final rejection was withdrawn. More specifically, it was noted that the Martin reference did not adjust one or more color drive settings for a pixel, nor does it create a pseudo gray level (*see* claim 1). Also, when discussing claim 1, Applicant's attorneys explained the functionality Martin's spatial dithering technique and how it was being misapplied to the independent claims of present invention. Examiner acknowledged that Applicant's attorneys explanation was correct. Applicant's attorneys also noted that Martin did not adjust a displayable gray scale number based on the remainder as described in claims 9, 21, and 39.

Applicant's attorneys further indicated that the rejected language in claim 21 is definite, is supported in the specification, and has clear boundaries. Upon stating this explanation, Examiners appeared to agree with this assertion, although this was not specifically stated.

Claim Rejections 35 U.S.C. § 112

Claims 21 and 23 are rejected under 35 U.S.C. § 112 second paragraph, as being indefinite. In claim 21, the Office action takes issue with the phrase “user perceives a depth of gray levels beyond what is available in gray scale” and asserts that the claim does not clearly define the boundaries of what is available in gray scale and is not supported in the specification. As stated in the interview summary above, Applicant submits that this limitation is clearly taught and has clear boundaries. In light of the interview conversation, Applicant respectfully requests that the rejection of claim 21 be withdrawn.

In claim 23, the Office action takes issue with the phrase “how much brightness” and asserts that it does not adequately quantify brightness. Claim 23 has been amended to recite “adjusting said color pixels to provide levels of gray between said gray scale levels.” In light of this amendment, Applicant submits that the present rejection is moot and requests that the rejection be withdrawn.

Claim Rejections 35 U.S.C. § 102

Claims 1-16, 21-26, and 39-42 are rejected under 35 U.S.C. § 102 as being anticipated by Martin, as further evidenced by the Authoritative Dictionary of IEEE Standards Terms, Seventh Edition, pg 330. “A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference,” *Verdegaal Bros. v. Union Oil Co. of Cal.*, 814 F.2d 628, 631, 2 U.S.P.Q.2d 1051, 1053 (Fed. Cir. 1987). Because the Martin reference fails to teach each and every claim element in the present application, Applicant respectfully submits that the above rejections are improper.

Claim 1 recites “adjusting one or more of said color drive settings of said pixel to create a pseudo gray level, wherein said pseudo gray level will be perceived as falling between two gray levels of said gray levels.” In the interview, Examiner agreed that at least this limitation is not taught by Martin. Therefore, Applicant requests that this rejection be withdrawn.

Claim 9 recites “adjusting said displayable gray scale number based on a remainder obtained from said dividing.” As noted by Applicant in the interview, Martin is not able to adjust the displayable gray scale number (i.e. adjusting intensity levels only adjusts which shade of gray which is being output on the gray scale, not the actual number of displayable grays in a gray scale). It was further explained that Martin merely places groups of pixels, having different values on the set gray scale, adjacent to each other on the display to give a perception of a different gray color. Accordingly, for at least this reason, each element of claim 9 is not taught.

Claim 21 recites “mapping said multiple shades of gray of said image to provide a depth of gray levels for a pixel beyond what is available in gray scale on said color display.” As noted by Applicant in the interview, Martin is not able to adjust the displayable gray scale number. Thus, Martin can not provide gray levels for a pixel beyond what is available in gray scale on the color display. It was further explained in the interview that Martin merely places groups of pixels, having different values on the set gray scale, adjacent to each other on the display to give a perception of a different gray color. Accordingly, for at least this reason, each element of claim 21 is not taught.

Claim 39 recites “adjusting said displayable gray scale number based on a remainder obtained from said dividing.” As noted by Applicant in the interview, Martin is not able to adjust the displayable gray scale number. It was further explained that Martin merely places groups of pixels, having different values on the set gray scale, adjacent to each other on the display to give a perception of a different gray color. Accordingly, for at least this reason, each element of claim 39 is not taught.

Claims 2-8, 10-16, 22-26, and 40-42 depend either directly or indirectly from independent claims 1, 9, 21, and 39, and thus, inherit each and every limitation of their corresponding independent claims. As a result, claims 2-8, 10-16, 22-26, and 40-42 are allowable for at least the reasons set forth above. Further, dependent claims 2-8, 10-16, 22-26, and 40-42 contain aspects that are patentable in their own right.

Claim Rejections 35 U.S.C. § 103

Claims 18-20, and 43-44 are rejected under 35 U.S.C. § 103 as being unpatentable over Martin. Claims 27-34 are rejected under 35 U.S.C. §103 as being unpatentable over Martin in further view of Rozzi (U.S. App. No. 2002/0180751, hereinafter Rozzi). To establish prima facie obviousness of a claimed invention, all the claim limitations must be shown by the prior art. *In re Royka*, 490 F.2d 981, 180 U.S.P.Q. 580 (C.C.P.A. 1974). Because the proposed combinations fail to teach multiple claim limitations as asserted by the Examiner, Applicant respectfully submits that the present rejections are improper.

Claim 27 recites “dividing said input number by a factor to obtain a displayable gray scale number, and adjusting color outputs based on a remainder obtained from said dividing.” This claim was rejected based on the incorrect interpretation of spatial dithering in Martin. Accordingly, submits that the rejection of claim 27 is not proper and requests that it be withdrawn.

Claims 18-20, 28-34, and 43-44 depend either directly or indirectly from independent claims 9, 27, and 39, and thus, inherit each and every limitation of their corresponding independent claims. As a result, claims 18-20, 28-34, and 43-44 are allowable for at least the reasons set forth above. Further, dependent claims 18-20, 28-34, and 43-44 contain aspects that are patentable in their own right.

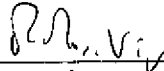
Conclusion

In view of the above, Applicant believes the pending application is in condition for allowance.

Applicant believes no fee is due with this response. However, if a fee is due, please charge our Deposit Account No. 06-2380, under Order No. 65744-P021US-10404749 from which the undersigned is authorized to draw.

Dated: April 24, 2008

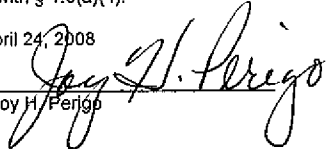
Respectfully submitted,

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I hereby certify that this paper (along with any paper referred to as being attached or enclosed) is being transmitted via the Office electronic filing system in accordance with § 1.6(a)(4).

Dated: April 24, 2008

Signature: 

Joy H. Perigo